REMARKS

Applicant respectfully requests reconsideration of this application in view of the following remarks and the above amendments. This response is believed to fully address all issues raised in the final Office Action mailed October 19, 2006. Furthermore, no new matter is believed to have been introduced hereby.

Claims 1, 9, and 17 have been amended. Accordingly, claims 1-4, 6-14, 16-22, and 24-27 remain pending.

Claim Objection

Claim 17 has been objected because it includes "to to." In response, claim 17 has been amended to remove the extra occurrence of "to." Accordingly, this objection is now believed to be moot.

Rejection of the Claims Under §§102 and 103

Claims 1-8 stand rejected under 35 USC §102(b) as being anticipated by Cristal, et al., "Large Virtual ROBs by Processor Checkpointing", hereinafter referred to as "Cristal". Further, claims 9-24 stand rejected under 35 USC §103(a) as being unpatentable over Cristal in view of Moshovos, "Checkpointing Alternatives for High Performance, Power-Aware Processors", hereinafter referred to as "Moshovos." All issues raised by these rejections are believed to be fully addressed below.

Claims 1-4, 6-8, and 25

Without limiting the scope of the invention, only in an effort to impart precision to the claims (e.g., by more particularly pointing out the invention, rather than to avoid prior art), and merely to expedite the prosecution of the present application, claim 1 has been amended to in part recite that the physical register is released "irrespective of a commit status of a corresponding instruction as indicated by a re-order buffer."

It is respectfully submitted that Cristal fails to teach or disclose the claimed combination of features such as set forth in claim 1. Generally, Cristal appears to be concerned with using check-pointing to provide large virtual re-order buffers (ROBs), see, e.g., Cristal title and abstract among other portions. This is very different than the claimed combination of features such as set forth in the amended claim 1 which, in part, determines when to release a physical register.

Furthermore, the outstanding Office Action equates Cristal's RCV (release counter vector) to the claimed counter. It is respectfully submitted that the only overlap seems to be the word "counter" and Cristal's RCV is very different than the claimed counter. For example, Cristal appears to modify its RCV (release counter vector) **with reference to ROB entries**. See, for example, the last paragraph of page 4 in Cristal which goes on to page 5 stating that Cristal's counters are updated based on the status of instructions

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within the ROB. According, it is respectfully submitted that claim 1 is in condition for

allowance.

Additionally, claims 2-4, 6-8, and 25 depend from claim 1, and should be

allowable for at least similar reasons, as well as additional or alternative elements that are

recited therein but not shown in the cited prior art.

Claims 9-14, 16-22, 24, and 26-27

Without limiting the scope of the invention, only in an effort to impart precision to

the claims (e.g., by more particularly pointing out the invention, rather than to avoid prior

art), and merely to expedite the prosecution of the present application, independent

claims 9 and 17 have been amended to in part recite that the branch predictor may release

physical register is released the physical register "irrespective of a commit status of a

corresponding instruction as indicated by a re-order buffer."

As discussed with reference to claim 1, it is respectfully submitted that Cristal fails

to teach or disclose the claimed combination of features such as set forth in claims 9

and/or 17. Further, Moshovos fails to address the shortcomings of Cristal. Hence, Cristal

and Moshovos, alone or in combination, fail to teach, disclose, or suggest the claimed

combination of features such as set forth by claims 9 and/or 17. According, it is

respectfully submitted that claims 9 and 17 are in condition for allowance.

Additionally, claims 10-14, 16, 18-22, 24, and 26-27 which depend from claims 9

and 17, and should be allowable for at least similar reasons, as well as additional or

alternative elements that are recited therein but not shown in the cited prior art.

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Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at 720.840.6740 to facilitate prosecution of this application.

Respectfully submitted,

HAITHAM H. AKKARY ET AL.

By their Representatives,

CUSTOMER NUMBER: 50890

Date _____ December 19, 2006 _____   By ___ /Ramin Aghevli – Reg. No. 43,462/ _____
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